

WHAT IS CLAIMED IS:

1. A laminating apparatus for laminating a film on a record medium, comprising:

fixing means for fixing a film onto a front side  
5 of a record medium;

feed means for feeding the record medium to said  
fixing means;

film introducing means for directing the film to  
said fixing means;

10 conveying means for conveying toward a discharge  
port the record medium and the film which are fixed  
together by said fixing means;

a cutter disposed between said conveying means and  
said discharge port and adapted to cut the film; and

15 a control unit having a repeat mode in which said  
conveying means is stopped in a condition that a  
preceding record medium leaves said fixing means and  
said feed means is driven to feed a succeeding record  
medium toward said fixing means, and then said fixing  
20 means and said conveying means are driven again before  
a leading end of the succeeding record medium reaches  
said fixing means, while the succeeding record medium  
and the introduced film are fixed together as  
discharging the preceding record medium from said  
25 discharge port.

2. A laminating apparatus according to claim 1,

09990306 112301

wherein, in the repeat mode, said control unit controls said cutter to cut the fixed preceding record medium and film in a conveying condition.

5           3. A laminating apparatus according to claim 1, further comprising a first sensor for detecting the record medium between said feed means and said fixing means, wherein said control unit starts driving of said fixing means and said conveying means when a  
10 predetermined time period is elapsed after the leading end of the record medium is detected by said first sensor, and stops the driving of said fixing means and said conveying means when a predetermined time period  
15 is elapsed after a trailing end of the record medium is detected by said first sensor, to thereby achieve a waiting condition.

20           4. A laminating apparatus according to claim 1, wherein said fixing means includes a pair of rollers for pressurizing and heating the record medium and the film, and one of said rollers is provided with a heat source and can be shifted to be spaced apart from the other roller; and, in the waiting condition, said one  
25 of the rollers of said fixing means is spaced apart from the other roller not to be contacted with the film.

09990306-112301

5. A laminating apparatus according to claim 3,  
wherein said fixing means includes a pair of rollers  
for pressurizing and heating the record medium and the  
film, and one of said rollers is provided with a heat  
5 source and can be shifted to be spaced apart from the  
other roller; and, in the waiting condition, said one  
of the rollers of said fixing means is spaced apart  
from the other roller not to be contacted with the  
film.

10

6. A laminating apparatus according to claim 1,  
wherein said control unit includes unit-of-sheet mode  
in which the record medium is fed by said feed means  
and the record medium and the introduced film are fixed  
15 together by said fixing means, and the fixed record  
medium and film are conveyed by said conveying means  
and cut by said cutter to be discharged from said  
discharge port.

20

7. A laminating apparatus according to claim 1,  
further comprising a second sensor disposed at a  
downstream side of said fixing means, wherein said  
second sensor has a first condition for detecting the  
fixed record medium and film portion, a second  
25 condition for detecting a film portion on which the  
record medium does not exist, and a third condition for  
detecting the fact that both the record medium and the

09990306-112301  
106211-906660

film do not exist.

8. A laminating apparatus according to claim 2,  
further comprising a second sensor disposed at a  
5 downstream side of said fixing means, wherein said  
second sensor has a first condition for detecting the  
fixed record medium and film portion, a second  
condition for detecting a film portion on which the  
record medium does not exist, and a third condition for  
10 detecting the fact that both the record medium and the  
film do not exist.

9. A laminating apparatus according to claim 3,  
further comprising a second sensor disposed at a  
15 downstream side of said fixing means, wherein said  
second sensor has a first condition for detecting the  
fixed record medium and film portion, a second  
condition for detecting a film portion on which the  
record medium does not exist, and a third condition for  
20 detecting the fact that both the record medium and the  
film do not exist.

10. A laminating apparatus according to claim 4,  
further comprising a second sensor disposed at a  
25 downstream side of said fixing means, wherein said  
second sensor has a first condition for detecting the  
fixed record medium and film portion, a second

00990306 112301

condition for detecting a film portion on which the record medium does not exist, and a third condition for detecting the fact that both the record medium and the film do not exist.

5

11. A method for manufacturing a laminated article, comprising:

a first feeding step for feeding a record medium to fixing means into which a film is introduced;

10 a fixing step for heating and pressurizing the film against a recorded image side of the record medium by said fixing means and for conveying the film until a trailing end of the film leaves said fixing means;

15 a waiting step for stopping conveyance of the fixed record medium and film in a condition that a trailing end of the fixed record medium and film leaves said fixing means to be waited there;

a second feeding step for feeding a next record medium in the waiting condition; and

20 a discharging step for fixing the next record medium by said fixing means, for conveying the fixed record medium and film in the waiting condition and for cutting a rolled film and discharging it in a conveying condition.

25

12. A method according to claim 11, wherein the film has a base material and a latex layer formed on

09990306.112301

the base material, and further comprises a peeling step for peeling the base material from the fixed latex layer after said discharging step in a condition that the latex layer is fixed to the record medium.

5

~~13.~~ An image forming apparatus comprising:

a recording apparatus for recording an image on a record medium by using a recording head; and

10 a laminating apparatus for laminating a film onto the record medium on which the image was recorded by said recording apparatus,

said laminating apparatus including,

15 a record medium supply portion to which the record medium discharged from said recording apparatus is supplied,

fixing means for fixing the film onto a front surface of the record medium,

feed means for feeding the record medium to said fixing means,

20 film introducing means for directing the film to said fixing means,

conveying means for conveying the record medium and the film which are fixed together by said fixing means toward a discharge port,

25 a cutter disposed between said conveying means and said discharge port and adapted to cut the film, and a control unit having a repeat mode in which said

00000306.112301

conveying means is stopped in a condition that a  
preceding record medium leaves said fixing means, said  
feed means is driven to feed a succeeding record medium  
toward said fixing means, and said fixing means and  
5 said conveying means are driven again before a leading  
end of the succeeding record medium reaches said fixing  
means, so that the succeeding record medium and the  
introduced film are fixed together while discharging  
the preceding record medium from said discharge port.

10

14. An image forming apparatus according to claim  
13, wherein said recording apparatus is an ink jet  
recording apparatus.

09990306.112301